



PATENT  
Attorney Docket No. A-68271-2/RMS/SMK/SPL  
Attorney File No.: 463037-00204

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

*In re* application of

UMEK

Serial No. 09/626,096

Filed: July 26, 2000

For: *Sequence Determination of  
Nucleic Acids Using  
Electronic Detection*

Art Unit: 1637

Examiner: Heather Calamita, Ph.D.

CERTIFICATE OF MAILING

I hereby certify that this correspondence, including listed enclosures, are being deposited with the United States Postal Service as First Class Mail in an envelope addressed to: Mail Stop Amendment, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450 on:

Date: October 14, 2004

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*Jessica Newlin*  
Jessica Newlin

**SUPPLEMENTAL INFORMATION DISCLOSURE STATEMENT  
AND  
STATEMENT OF RELATEDNESS**

Mail Stop Amendment  
Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

Sir:

In satisfaction of the duty of disclosure under 37 C.F.R. § 1.56, and in accordance with the provisions of 37 C.F.R. §§ 1.97 and 1.98, Applicants wish to draw the attention of the U.S. Patent and Trademark Office to the references cited on the accompanying form PTO/SB/8A. Copies of these references are enclosed.

Further, in satisfaction of the duty of disclosure under 37 C.F.R. § 1.56, and as required by M.P.E.P. § 2001.06(b), Applicant notes that the present application is related to the following pending patent applications:

1. U.S.S.N. 10/137,710, filed April 30, 2002; U.S.S.N. 10/336,225, filed January 2, 2003; and

10/19/2004 SSANDARA 00000020 09626096 180.00 0P  
02 FC:1806

Serial No.: 09/626,096  
Filed: July 26, 2000

2. U.S.S.N. 10/803,166, filed March 14, 2004.

Nothing herein shall constitute an admission concerning the contents of any of the cited references, nor shall the inclusion of a reference herein be considered an admission that the reference constitutes prior art against the invention claimed in the above-identified application. Submission of the present document shall not be construed as an admission that a search has been made or that better art does not exist.

Pursuant to 37 C.F.R. §1.97(c), enclosed is a check in the amount of \$180.00 as set forth in 37 C.F.R. §1.17(p). While no further fee is believed to be due, if this belief is in error, the Commissioner is authorized to charge any additional fees which may be required, or credit any overpayment to Deposit Account No. 50-2319 (Our File No. 463037-00204; Our Docket No. A-68271-2)).

Please direct further questions in connection with this Application to the undersigned at (415) 781-1989.

Respectfully submitted,  
DORSEY & WHITNEY LLP

Dated: 10/14/02

**Customer No.: 32940**

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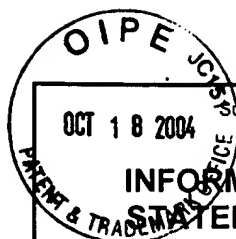
Facsimile: (415) 398-3249

By: [Signature]

Steve P. Lendaris, Reg. No. 53,202 for  
Robin M. Silva, Reg. No. 38,304

*Filed Under 37 C.F.R. § 1.34(a)*

Attachments: Form SB/08/A-B, substitute for Form PTO-1449  
192 cited references



<b>Substitute for form 1449A/PTO (Modified)</b>  <b>INFORMATION DISCLOSURE STATEMENT BY APPLICANT</b>  (use as many sheets as necessary)			<b>Complete if Known</b>		
			Application Number	09/626,096	
			Filing Date	July 26, 2000	
			First Named Inventor	UMEK, Robert M.	
			Art Unit	1637	
			Examiner Name	Calamita, Heather	
Sheet	1	of	10	Attorney Docket Number	A-68271-2/RMS/RMK/SPL (463037-00204)

U.S. PATENT DOCUMENTS					
Examiner Initials*	Cite No. <sup>1</sup>	Document Number Number-Kind Code <sup>2</sup> (if known)	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
	A1	4,656,127	04-07-1987	Mundy	
	A2	4,683,195	07-28-1987	Mullis et al.	
	A3	4,683,202	07-28-1987	Mullis	
	A4	4,713,347	12-15-1987	Mitchell et al.	
	A5	4,851,331	07-25-1989	Vary et al.	
	A6	4,876,187	10-14-1989	Duck et al.	
	A7	4,988,617	01-29-1991	Landegren et al.	
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	A11	5,156,810	10-20-1992	Ribi	
	A12	5,171,853	12-15-1992	Thorp et al.	
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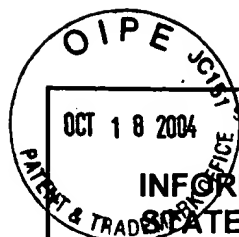
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	A33	5,695,940	12-09-1997	Drmanac et al.	
	A34	5,705,346	01-06-1998	Okamoto et al.	
	A35	5,710,028	01-20-1998	Eyal et al.	
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	A37	5,747,255	05-05-1998	Brenner	
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	B1	EP 0 142 301 A2	05-22-1985	Serono Diagnostics Limited		
	B2	EP 0 317 074 B1	05-24-1989	Orion-Yhtymäe Oy		

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	B3	EP 0 371 437 B1	06-06-1990	Orion-Yhtymäe Oy		
	B4	EP 0 478 319 A1	04-01-1992	Tokyo Shibaura Electric Co.		
	B5	EP 0 668 502 A2	08-23-1995	Yissum Research Development		
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	B7	WO 93/10267 A1	05-27-1993	Igen, Inc.		
	B8	WO 93/25898 A1	12-23-1993	Medisense, Inc.		
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	B10	WO 95/00667 A1	01-05-1995	The Research Foundation of State University of New York		
	B11	WO 95/00669 A1	01-01-1995	Pharmacia Biotech AB		
	B12	WO 95/05480 A2/A3	02-23-1995	BioMedical Corp.		
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	B14	WO 96/06946 A1	03-07-1996	Igen, Inc.		
	B15	WO 97/13075 A1	09-05-1997	Danfoss A/S		
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	B19	WO 98/49344 A1	11-05-1998	Lockheed Martin Energy Research Corp.		
	B20	WO 99/13109 A1	03-18-1999	Seq Ltd.		
	B21	WO 99/15893 A1	04-01-1999	Aventis Res. & Technologies GmbH & Co.		

NON PATENT LITERATURE DOCUMENTS			
Examiner Initials*	Cite No. <sup>1</sup>	Include name of the author (in CAPITAL LETTERS); title of the article (when appropriate); title of the item (book, magazine, journal, serial, symposium, catalog, etc.); date, page(s), volume-issue number(s), publisher, city and/or country where published.	T <sup>6</sup>
	C1	ALEXANDER, V., "Design and Synthesis of Macrocyclic Ligands and Their Complexes of Lanthanides and Actinides," <i>Chem. Rev.</i> 95(2):273-342 (Mar. - Apr. 1995).	
	C2	ALSFASSER, R., et al., "Novel Building Blocks for Biomimetic Assemblies. Synthesis, Characterization, and Spectroscopic and Electrochemical Properties of New Bidentate Ligands Derived from Lysine and Cystine and Their Complexes with Bis(2,2'-bipyridine)ruthenium(II)," <i>Inorg. Chem.</i> 35(3):628-636 (Jan. 1996).	

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	C3	ARKIN, M., et al., "Rates of DNA-Mediated Electron Transfer Between Metallointercalators," <i>Science</i> 273(5274):475-480 (Jul. 1996).	
	C4	BAINS, W., et al., "A Novel Method for Nucleic Acid Sequence Determination," <i>J. Theor. Biol.</i> 135(3):303-307 (Dec. 1988).	
	C5	BARANY, F., "Genetic disease detection and DNA amplification using cloned thermostable ligase," <i>Proc. Natl. Acad. Sci. USA</i> 88(1):189-193 (Jan. 1991).	
	C6	BEATTIE, K., et al., "Advances in Genosensor Research," <i>Clin. Chem.</i> 41(5):700-706 (1995).	
	C7	BIGNOZZI, C., et al., "A simple poly(pyridine)ruthenium(II) photosensitizer: (2,2'-bipyridine)tetracyanoruthenate(II)," <i>J. Am. Chem. Soc.</i> 108(24):7872-7873 (Nov. 1986).	
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	C9	BLONDER, R., et al., "Application of redox enzymes for probing the antigen-antibody association at the monolayer interfaces: development of amperometric immunosensor electrodes," <i>Anal. Chem.</i> 68(18):3151-3157 (Sep. 1996).	
	C10	CARLSSON, C., et al., "Screening for genetic mutations," <i>Nature</i> 380(6571):207 (Mar. 1996).	
	C11	CARTER, M., et al., "Electrochemical investigations of the interaction of metal chelates with DNA. 3. Electrogenated chemiluminescent investigation of the interaction of tris(1,10-phenanthroline)ruthenium(II) with DNA," <i>Bioconjug. Chem.</i> 1(4):257-263 (Jul. - Aug. 1990).	
	C12	CARTER, P., et al., "Oxidation of DNA Harpins by Oxoruthenium(IV): Effects of Sterics and Secondary Structure," <i>Inorg. Chem.</i> 35(11):3348-3354 (May. 1996).	
	C13	CARUANA, D. J., et al., "Enzyme-amplified amperometric detection of hybridization and of a single base pair mutation in an 18-base oligonucleotide on a 7-µm-diameter microelectrode," <i>J. Am. Chem. Soc.</i> 121(4):769-774 (Feb. 1999).	
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	C17	CLARKE, P.R., et al., "Physical and chemical aspects of ultrasonic disruption of cells," <i>J. Acoustics Soc. Am.</i> 50 649-653 (1970).	
	C18	DAIZADEH, I., et al., "Effect of protein dynamics on biological electron transfer," <i>Proc. Natl. Acad. Sci. USA</i> 94(8):3703-3708 (Apr. 1997).	
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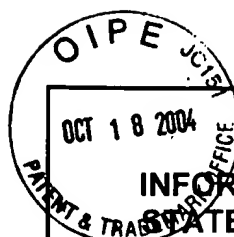
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	C21	DOKTYCZ, M., et al., "Genosensors and Model Hybridization Studies," <i>Automation Technologies for Genome Characterization</i> , T. Beugelskijk (ed.), John Wiley & Sons: New York, NY, 1997, 10:205-225.	
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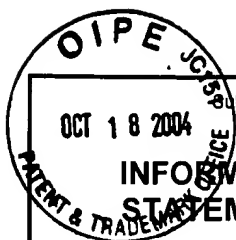
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	C38	GOODWIN, D., et al., "Microwave Miniprep of Total Genomic DNA from Fungi, Plants, Protists and Animals for PCR," <i>BioTechniques</i> 15(3):437-441 (1993).	
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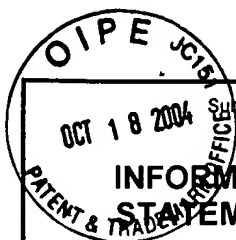
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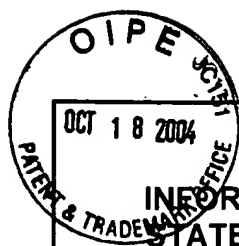
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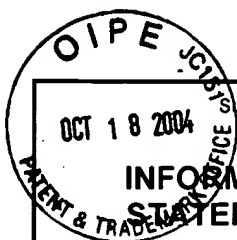
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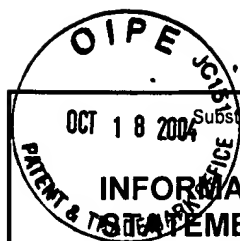
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			Application Number	09/626,096	
			Filing Date	July 26, 2000	
			First Named Inventor	UMEK, Robert M.	
			Art Unit	1637	
			Examiner Name	Calamita, Heather	
Sheet	10	of	10	Attorney Docket Number	A-68271-2/RMS/RMK/SPL (463037-00204)

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	C109	WELCH, T., et al., "Distribution of Metal Complexes Bound to DNA Determined by Normal Pulse Voltammetry," <i>J. Phys. Chem.</i> 100(32):13829-13836 (Aug. 1996).	
	C110	WELCH, T., et al., "Electron-Rich Oxoruthenium(IV) Cleavage Agents: A Zero-Order Rate Law for DNA Catalysis," <i>Inorg. Chem.</i> 36(21):4812-4821 (Oct. 1997).	
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	C112	WOOD, J.C., et al., "Time-Frequency Transforms: A New Approach to First Heart Sound Frequency Dynamics," <i>IEEE Transact. Biomed. Eng.</i> 39(7):730-740 (1992).	
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